STA. 195
DATA CONTROL STA.
MAINTENANCE
LOG
COMM. DIV.
12 - 19 - 72

12-19-72 Tested spare computer cards from STA. 108. T.C.L.

12-20-72 Tested spare computer cards from sta. 108. The computer would bomb then the room temperature would go above approx. 72°-74°. So I run test to look for the problem. Found 2 connector pins on card H-10 on the mainframe were widely spaced apart. T.C.L.

12-21-72 - Run some more test on the high room temperature bomb out of the computer. Also cked all the computer cards for connector pins that were widely spaced apart and repaired. The computer would run good up to approx. 87-88°. T.C.L.

12-26-72 - Made a absolute mainframe exerciser tape #303001 B and a absolute Inst. Simu. & Comp. tape #303002 B. Also run the Interface diagnostic communication test back to back. T.C.L.

1-25-73 Cleaned all air filters. Run the
Communication test program and ckd
RFL levels and freqs. T. C. L.

2-27-73 Chicago wasn't always receiving
a signal from STA. 195. Run the comm.
Test program and ckd RFL levels and
freqs. The carrier freq. was 1696 and
the BF osc. was 28.2998 Mc. Reset
to 1700 cps. + 28.3 Mc. Run the test
program back to back for 1 Hz. and
there were no errors typeout.
T. C. L.

3-14-73 Installed a modified Carrier detector
alarm HB-21025 with a carrier cut
off circuit then the carrier is locked on
that came from the shop at STA. 106.
Cked it out and it worked ok. T. C. L.

3-23-73 Cleaned all air filters.
Using the new Modified to upper 16K
loader program run the following
diagnostics 303001B, 30302B, 303003B,
303004A, 303005B 303006B, 303007C,
303008C, 303010A, 303014A, Interface
diagnostic prog. and the interface

Diagnostic and every thing cked ok.
Cked of the RFL carrier cut off circuit
in the Carrier detector alarm HB-21025
and found that the relay MRB 2C06
was sticking needs to be replace and
#106 shop is sending one out. T.C.L.

3-30-73 Replaced the bad Carrier detector
alarm mod. HB-21025 with one
from STA.106 shop. And run the
Comm test program to ck. out
the carrier cut off circuit and every
thing cked. out ok. T.C.L.

4-26-73 Run the Comm. test program
and cked RFL levels & freqs.
Also run back to back because
gas control said STA.195 & 197 was
intermitt. Everything cked. ok. T.C.L.

4-30-73 Run the Comm. test program
and cked. RFL. levels & freqs. Also
run the back to back test. Everything
cked ok. T.C.L.

4-27&29-73 Col. foxbore equipments
5-23-73

5-4-73 Run the comm. test program and ched the RF level + freqs. also run back to back test. Cked Mod. + Demod level on the MC-50 ch. 30 & 32. Everything ched. ok. T.C.L.

5-7-73 Teletype lubrication. T.C.L.

5-11-73 Run the Comm. test program and ched the RFL level + freqs. also run back to back test. Ched Mod + Demod. levels on the MC-50 ch. 30 & 32. Everything ched. ok. T.C.L.

5-21-73 Run the comm. test program and ched the RFL levels + freqs. also run back to back test. Ched Mod. + Remod level on the MC-50 ch. 30 & 32. Everything ched ok. Cleaned the connector on the RFL. drawers. T.C.L.

5-23-73 Run the Memory Worst Case diagnostic program No. 303010A for 20 min. Everything ched ok. Also reran the Comm. test program back to back and everything ched. ok. T.C.L.

5-30-73 cked all power supply voltage and reset the 3.6 V., 5 V. and 21 V. power supply. cked the AC voltage into the computer and it was 113.5 Volts. cked the voltages from the Line driver, current driver and inhibit driver regulator 8269 and reset R7 output voltage. cked the Memory timing on 8270. cked the voltage on the threshold regulator 8277 and reset the 12V with R11 it was 12.3 Volts. R6 was ok. Recked the Power fail safe 8296 and everything was ok. T.C.L.

6-1-73 Recked all power supply voltages. cked the voltage on the threshold regulator 8277 and reset the 12V with R11. cked + reset the voltages from the Line driver. Adj. the read + write current from the current drivers. Ran the the Mainframe exerciser 303001B, Compare Memory to "A" and Memory worst Case 303010A and everything chrd ok. T.C.L.

6-7-73 & 6-8-73

Readjusted all power supply voltages.
Readj. voltages on the line driver cards
8269 on both memorys. Also readj. voltages
on the threshold regulator cards. 8277.
Adjusted the read and write currents on the
dual current drivers card No. 8959.
But then I was running the memory
worst case diagnostic tape 303010A using
the upper 16K loader it would lose a 1
in bit 12 of locates 10732 & 10721.
Went using the 8K loader everything was
ok then running the worst case diagnostic.
cked and repair bad pins on the back of
the cards used for the old & New memory
but it still didn't work. Found out by
reversing the line driver cards 8269 from
both memorys and running the worse case
diagnostic tape it would work ok. Re cked
the line driver voltages, read & write
currents but nothing had changed. Reversed
the cards back to the original way and
the worse case diagnostic would not
run. So I reversed the line driver

and fuses. and also even back to
back. Everything cked. ok. T. C. L.

6-26 + 27 - 1973
   Run the room temps up to see how
the computer would run. And found out that
it would bomb out at approx. 80° to 82°.
Cked all card pin widely spaced pins and
repaired widely spaced pins. Then the
computer would go up to approx. 90°
before it would bomb out. T. C. L.

7- 9 + 10 + 11
   The control panel reading such as mainline
suction pressure, mainline discharge pressure
and etc. would go to there min. value
intermitting went running the programs
tape. Run the following tapes ok,
303002 B, 303005 B, 303006 B, 30300 1 B,
303014 A, and 30301 0 A. Then running the
interface diagnostic tape on the A/D Conversion
test the read outs would intermittenly go
to min. Found a pin AU in connector P6
on the back of rack 1F2 that was not

push all the way in, so I repaired. Then
the A/D test worked ok all the time.
Also run the program tape to see it
wont temp. the program would bomb out
and it was at approx. 88°. Run the
composite diagnostic program tape ~~the~~
~~~~ add everything ched ok. ⟨T.C.L.⟩

7-19-73 + 7-20-73

Had a problem in the A/D section
of the computer and the computer wouldn't
read out the presses and etc. Found a
bad transistor Q_3 2N3503 on card
43321 Z driver. and also card. No.
43326 had a intermitten trouble which
Alon took back to Beatrice to repairs.
Also installed a transient suppressors
on the Porax and the computer imputs.
The ched out 10 times on-off and the
computer didit bomb out. But the porax
didit come on 3 times. ⟨T.C.L.⟩

7/25/73 The program would intermittently bomb out. Ran the memory worst case tape for approx. 1 Hr. and got 2 mistakes. It would loss a one in bit 14 at different locations. Cked and repair all pins on the cards for both memorys. But this didn't seem to help. Cked voltages on current driver card 8269 and readj. the voltage on 6K18 for 18.4 volt which was low. Cked the voltages on the threshold regulator card 8277 and everything was ok. Cked the current driver 8959 read + write current and everything looked ok. Rerun the memory worst case tape for 1 Hr and everything this time worked ok.   J. C. L.

7/31/73

On 7-30-73 the parox was removed and the Solatron was hocked back up. So I recked the solatron voltage and reset all the power supply voltage in the computer. Readj. voltage on the line driver cards 8269 on both memorys. Also readj. voltages on

the threshold regulator cards 8277.
Adjusted the read & write currents currents
on the dual current driver cards. No. 8959.
Reran the memory worst case diagnostic
tape 30 3010 A and everything ched ok.
Turn the power to the Galatron on & off
10 times and everything ched. ok. T.C.L.

8/2/73
Run the Rate Modem & Communications
test program DCS#2 back to back and ched
and reset RFL levels & freqs. It play
one hour back to back with out a error.

8/3/73 + 8/7/73 + 8/8/73 + 8/9/73
The computer would intermittely bomp
out went turning on - off the power to
the Galator. And sometimes the loader
tape and the program tape would not
load back in the computer. Ched all power
supply valtage and line driver voltages and
read & write current and readjs. ~~them~~
if need but have were all about wright.
This didit seem to help the problem.
On 8/7/73 change out the memory cards

one at a time with spares from Beatrice
but was unable to locate the problem.
On 8/8/73 I found by replacing
card No. 4639 Data saver the computer
would work ok.

8-13-73 & 8-14-73

Worked on the computer looking for
the intermitt problem of the computer
bombing out when the power was turned
on + off. Had no luck. T.C. L.

8-14-73

Replaced the spare A.D card No.
83326 with the one that Dan took
to Beatrice 7-20-73 that had a
intermit problem in it and he repaired.
Also the TTY reader didn't work and
found a short diode CR3 in the reader
power supply. Replaced the bad diode
and the TTY reader worked ok. Tried
turning the computer power on + off
approx. 30 times and everything
ched. ok. T.C. L.

8-17-73

Replaced bad nickel-cadmium
batteries 12 volt in the parabam clock.
T. C. L.

8-23-73

Ready. the REL levels + freqs.
Installed the Low freq. clock card No.
8717 in the TTY that was repaired
at slo. 104. T. C. L.

8-30-73 Cleaned all air filters in the computer.
Added some grounding straps to
the computer. Cked the REL level &
levels and everything was ok. T C L,

9-5-73 When through the adj. procedures
for the REL Modem and cked Freqs.
+ level of the REL. and everything
cked ok. T. C. L.
Also the Parabam Digital clock would
go to zero month, zero days, and zero
hours then the AC power then off and then
back on. Cleaned the relay K1 in the

PM12E3-P200 power supply and then
the clock would hold the right Months,
Days, and hours. T.C.L.

Sept. 7, 10+11
    Calibrated Foxboro equipment. T.C.L.

Sept. 21, 1973
    Ran the Comm test Program because
Gas Control was getting a poor report.
The RFL Level + Freqs. all look good.
Also the MC-50 Mod + Demod levels look
good. Also it played back to back for 1 Hr.
and no errors. T.C.L.

Sept. 27, 1973
    The Paralam clock would intermittly
lose the Month + Day (go back to 1 Month
+ 1 day) when the A.C power would go on + off.
Found a leaky transistor Q1 40251
in the Power supply board assay, 34857
and replaced. Also found a leaky transistor
Q7 2N1539 on the Power supply PM12E3-P200
but didn't have one so I ordered one from

the shop of do 106 and when I receive
it I will replaced the bad transistor.
                                    T.E.L.

Oct. 3, 1973
        Replaced a leaky transistor Q7 2N1539
in the power supply PM12E3-P200 and
then turned the power on-off several times
to ck. that the Month + Day didn't go
back to one month + one day and everything
ched out ok. Also ran the Comm. test
program and ched the RFL levels +
Freqs. Also ran book to book for
45 mins. and everything cked out ok.
                                    T.E.L.

Oct. 4 + 5, 1973
        At 10:00 AM 10/4/73 the computer bombed
out when the A-C power was turned out off.
then was unable to load in the bootstrap
loader, cked the operation of the enter
switch on the control panel by grounding
pin 13 of IC-14 and putting the enter
switch up and with the scop on pin 10

of IC10 look for a Hi. went pushing
down on the stop switch. Everything
cked ok. Cked the read & write currents
from the lower 8k current driver card
#8959 and found that the X-read
current was only 200 ma. went it should
be 360 ma. Was unable to adj. the
current. Found the transistor Q3,
2N3134 was open and I replaced.
Readj. the line driver #8269
voltage and readjed the X-read
current to 360 ma. The computer
cked out ok. after completing the
above.   T C L

Oct. 19, 1973
   Completed the following chs. on
the computer. A1-A6, B1+B3, C1 + C2
C2 power supply voltages.
Model 222 $(-6V = -5.865$ volts$)$ $(-10V = -9.587$ volts$)$
         $(-16V = -15.061$ volts$)$ $(+40V = +33.450$ volts$)$
         $(+16V = +17.381$ volts$)$ $(+35V = +33.176$ volts$)$
         $(+21V = +21.06$ volts$)$

Model 223 (computer main frame)
  3.6 volts = 3.596 volts
Model 221   3.6 volts = 3.606 volts
             5 Volts = 4.961 volts
Model 223 (Far right interface rack)
      3.6 volts = 3.600 volts
  c_3, c_4 (A-accumulator = 105)
  c_5, D_1, D_6,   T.C.L.

Oct. 24, 1973
    Completed the following ck's on the
computer. P_1, P_2, P_3 P_5, D_7.   T.C.L.
Computer A-C input voltage 117.5 V.A.C.

Nov. 2, 1973
    Received a new program tape dated
10/25/73 but one was damaged in shipping so
I made a new tape with the spare. Loaded
in the new tape into the computer and ck'd
it out in locale control and everything seem
to ck out ok. Reloaded in the old tape dated
7/3/73.   T.C.L.

Nov. 5, 1973

Loaded in new program tape dated 10/25/73 and chcd with chicago and everything cked ok. T.C.L.

Nov. 7, 1973

Run the Comm. test program + chcd the RFL levels + freqs, run back to back for 1 Hz, and there were no errors. T.C.L.

Nov. 26, 1973

Run the Comm. test program + chcd the RFL level + freqs, Run back to back for 1 Hz and there were no errors. The computer bombed the night of 11/23/73 so I ran the following tape, Memory worst case, Compare memory to "A", Memory test, + the PWR Fail-auto resart and everything worked ok. T.C.L.

Also cleaned all air filters in the computer.

Dec. 5, 1973

On 12-4-1973 the operator was unable to reprogram the computer. I found that when loading in the loader tapes it wouldn't stop a the end but would go all the way through the reader. Also the teletype motor wasn't running. Replaced a 2¼A SLO-BLO fuse part No. 165734 and then everything worked ok. Ran the Memory worst case tape 30.3010A and the composite diagnostic program tape and everything checked out ok.

T.C.L.

Dec. 18, 1973

Ran the Comm. test programs and checked the RLL levels + freqs. Ran back to back for 1½ hrs. with no errors. Everything look ok. T.C.L. The carrier from Chicago was 1696 cps.

Dec. 19, 1973

Cleaned all the computer + interface air filters. Installed grn. wire to the 2R1, 2R3 sleeves and also between the

middle interface rack and the mainframe
rack. 1Hr.   T.C.L.

Dec. 19, 1973
The computer bombed about 3 p.m.
and I was unable to load in the loader
tape. By leaving three covers to the memorys
off and the main frame door open the
computer would run ok. The problem was
intermitt. (work overtime / 2 Hrs.)   T.C.L.

Dec. 20, 1973
Worked on the problem above but the
computer worked ok all day untill about
2:15 PM, and then it was very intermitten
and was unable to find any thing wrong. T.C.L.
(= 4 Hrs.   )

Dec. 21, 1973
Worked on the problem above.
When the upper 16K memory cover plate
was off and the mainframe door open the
memory worse case tape worked ok. But
when the cover was on and the door closed.

after approx. 15 to 20 min the memory would
bomb out. Was unable to find the problem
so I left the cover off and the door open.
(10½ hr.) T. C. L.

12-26-73
    Worked on the above problem.
Ran the room temperature to 88° F
before the memory worse case tape
would bomb out. Never did get the
computer to bomb out at normal temperature.
                            6½ hr. T. C. L.

12-27-73
    Readj. the computer modems from
2000 Bit-per-second to 1667 Bit-
per-second. Played back to back for
1½ hrs with out a error. (4 Hrs.) T. C. L.

12-28-73
    The computer bombed out 2 times
because of A-C failed but was unable
to find any thing wrong & was unable to
get the computer to bomb out. T. C. L. (4 Hrs)

1-2-74

Worked on a intermitton bomb out
problem but was unable to get the
computer to bomb out. Run the composite
diagnostic program tape without any
errors.   (5 Hrs) T.C.L.

Also run the room temperature up
to 86° without a bomb out.

1-4-74

Run the comm. test program & chel
the RFL levels & fregs. Run back to
back for 1½ Hrs. without a error.
Chicago did say that on 1-2-74 & 1-3-74
the computer didn't report every good.
                        T.C.L. (4 Hrs.)

1-9-74

Run the comm. test program + chel
the RF L levels & fregs. Run back to
back for 1½ Hrs. without a error.
Chel all air filters. T.C.L. (5 Hrs)

1-15-74

Replaced 2 bad fan motors
one in the middle interface rack
model No. 80-004 and the other one
in the 3.6 V power supply in the West
rack the for model No. 4500   D.C.L. 3Hrs.

1-21-74

The programmed bombed on the
1-18-74, 1-19-74 so I ran the
following diagnostic tapes to
see if I could find any thing wrong:
Memory worst case 30301.0A, Load/ store 1
Reg. test. 30300.5B, Inst. Same. +
Comp. 30300.2B Mainframe Exerciser
30300.1B and the Interface-Map.
Verify test 30301.4B and everything
dried out ok.   D.C.L. (4Hrs.)

1-25-74

Replaced a bad fan motor on the
model No. 222 power supply. Adj. the
21 volt pot. Readjed. the power fail
safe card #296 at location 96.   4Hrs.
                                  T.C.L.

1-31-74

Did the following routine maint.
A3, A4, A5, A6, B1, B3, & C.L. (4 Hrs.)

2-27-74

Did the following routine maint.
A1, A2, A3, A4, A5, A6.
also was teletype was making a little
noise so I oil some point around the
motor did it sounded much better. (5 Hrs)
                                    T.C.L.

3-6-74

Gas Control reported that the computer
didn't report back 18 times last night.
Ched. the RFL freqies and levels and everything
ched ok. The Computer played back to
back for 45 min. without a mistake. Reset
ch. 30 mod. amp. levels and ch. 26 demod amp. level.
                                    T.C.L.

3-20-74

Revised the RFL Modem adj. procedure as to
the March 15, 1974 letter changing the

bit per second from 1667 BPS to 1200 BPS.
Cked the RFL levels & freqs. and play back
to back for 45 min. without a error.
Cked with Ron Jepson at Chicago and
everything cked out ok.   T.C.L. (4 Hrs.)

3-22-74
    Did the following maint on the
computer. A2, A3, A4, A5, A6, B.   T.C.L (2 Hrs)

3-29-74
    Cked the computer RFL freqs. + levels
and run back to back 1 Hr without
a error. Cked with Ron Jepson at Chicago
to see how it was reporting & everything
seem to be ok.   T.C.L. (1½ Hrs.)

4-11-74
    Did the following Semi-Annually
routine maint. on the computer. A2, A3, A4, A5, A6,
B1, B3, C2, C3, C4 -"A" decum" 105, C5,
            Power Supply voltages

↓

4-11-74

Model 222

-6V = -5.870 V.   +16V = 17.375 V.
-10V, = -9.580 V.   +35V = 33.154 V.
-16V = -15.295 V.   +21V = 21.000 V.
+40V = 33.170 V.

Model 223
   3.6 Volts = 3.620 Volts.

Model 221
   3.6V = 3.6 Volts
   5V. = 5.003 Volts.

Model 223 (For right interlock rack.)
   3.6 Volts = 3.620 Volts.
                              6 Hz. T.C.L.

4-15 +16 +17 - 74
   Cal. Foxboro equipment.   T.C.L.

4-19-74
   When through the photodiode amplifier
   adjustments on the high speed reader
   using the neutral density filter. T.C.L. 2Hz.

5-7-74

Did the following monthly maint.
on the computer. A2, A3, A4, A5, A6 T C I. (1tk.)

5-17-74

The computer bombed out 3 times
between 5-16-74 + 5-17-74 so I running
the following diagnostic tapes
303001B, 303002B, 303003B, 303004B,
303005B, 303006B, 303007C,
303008C and 303010A without a
error. Also ched the Pwr. fail and
restart circuit and it worked ok.
                6tk.   T C I.

5-19-74

The computer bombed two times on
5-18-74 and two times on 5-19-74. When I
got here Sunday dnight the computer
displays reading were all reading wrong.
But when I reprogrammed everything
was ok. Ran the following diagnostic
tapes 303010A Interface diagnostic
PCS #1 and everything was ok. T C I.

5-20-74

The computer bomb out at about 9:30 A.M.
Reset 3, 6 + 5.0 Volt power supplies.
Readj the memory voltages + read
+ write currents in both memorys.
Readjed. the power fail circuits. Run the
memory worst case tape and run the
temperature up to 84° without a error.
Turn the power on + off approx. 10 times
and the computer bomb out 1 time.

6 Hr. T. C. L.

5-21-74

Turn the power on + off to the computer
several times without a bomb out. Recked
the 3, 6 V + 5.0 volt power supplies.
Found that the 5.0 Volt power supply
was varying. Found a lose pin in connector
CD-7 on the violet wire which is the 5.0 Volt
wire. Run the composite diagnostic program
tape without a error. T. C. L. (6 Hrs).

6-6-74

Did the following monthly maint.
on the computer. A2, A3, A4, A5 & A6.
(1Hz) ℗ C.L.

6-21-74

The computer missed reporting 11 times the
night before. Ched the RFL levels &
freqs. and also ched the Mod. & Demod
levels on the MC-50 multiplex but everything
ched ok. Ran the comms test back to
back for 1 Hz without a error. ℗ C.L. 1½ Hz

6-26-74

Ched the RFL levels & freqs because
Chicago said the computer wasn't reporting
back all the time. Everything look
ok. Had Ron Jepson at Chicago take
a look at Gas Control to see how
sta. 195 was reporting back. It wasn't
reporting back as good as the other
stations so I made a small adj in the
bias & balance adjustment. ℗ C.L. 3H x p

6-28-74

Cked the RFL levels & freqs. because
Chicago said the computer wasn't
reporting back all the time, Ready the
bias & balance on the FS Receiver
HB-21045 and ran back to back
without a error for 45 mins. TCL.
(2Hrs)

7-1-74

Recked the RFL levels + freqs
because Chicago said the computer
was reporting back slow on the
readouts. Everything cked out ok.
Also cked the operation of the Schmitt
trigger and it was working ok. TCL.
(2Hrs)

7-3-74

Recked the RFL levels + freqs
because Chicago said the computer
was reporting back slow on the readout.
Everything cked out ok. Ready R7 on the
Freq. clock card in slot 12A on Rm Japon
in Chicago said the readouts were
coming in real good. TCL. (2Hrs)

7-5-74

The computer report back to chicago the night before approx 37%. Recked the RFL level + freqs. and everything cked out ok. Readj. the low freq clock card. R7 at loc. 12-A. Cked with Ron Jepson in Chicago to see the read outs where working. D.C.L. (2 1/2)

7-9-74

Run the composite diagnostic program tape without an error. But was unable to complete running the tape because of the lack of time. (Note) The tape had several holes (5 Hrs. T.C.L.) with dirt in the holes and the tape would stop on me and I would have to start over.

7-10-74

Run the composite diagnostic program tape without an error. Replace the RFL modules with spare from Beatrice and run the comm. test program. (6 Hrs. T.C.L.)

7-23-74

Replaced all the RFL modules with
sta. 195 modules, replacing the spare RFL
modules from sta. 106. Run the com. test
program and set all freqs. + level.
Run back to back for 30 mins. without
a error. Reprogrammed with the sta.
program tape and there were very
few interrupts. Ched with Ron Jepson
in Chicago and he said the computer
was reporting very good. T.C.L. (3 Hrs.)
Also replaced the I/O sync card No 8712
+ the Gating C.O. card No. 8705 in location
2R1.

7-26-74

Run the Inst. Simu. + Comp. test
program with 98 successfull cycles
without a error. T.C.L. (1 Hr.)

7-30-74

Changed around the two Priority Interrupt
cards No 8242 at olaction 1R1 2A + 2B.

7-30-74

Ran the comm test program and reched
the RFL equipment. Played back to back
for 45 min. without a error. Cheld with
Chicago to see how the computers were
reporting but the master computer
wasn't working. T.C.P. (2 Hrs.)

7-31-74

Ran the Pwr. Fail-auto restart tape
and cled out the pwr. fail circuit and
everything cled out ok. Ran the
Inst. Simu. + comp. test program and
I had a few errors. Found two pins
on card 8206 at location E-5, that
where spare apart and repaired. Replaced
the following cards at location 2R1,
25A, 13A, 10A, and ran the comm. test
program to chk the RFL. Cled the
comm. between Sta.195 + Chicago. (7 Hrs) T.C.P.

8-9-74
　Run the composite diagnostic
program tape without an error.
Replaced the micro switch on the
high speed reader. T C. L. (4 hr).

8-14-74
　Did the following annual maint. on the
computers C2, + C4

Model 222		Ripple	Model 221		Ripple
-6 = -5,869 2	-	19 mv.	3.6 V. = 3.60	—	6.3 mv
-10 = -9,594	-	7.4 mv.	5.0 V = 5.00	—	11.2 mv.
-16 = -15,190	—	36 mv.			
+40 = +32,981	—	2.8 mv.	Model 223		
+16 = 17,40	—	1.6 mv.	3.6 - 3,602 - 1.45 mv.		
+35 = 33,178	—	3.2 mv.			
+21 = 21.00	—	.59 mv.	Model 223 (For right)		

3.6 V = 3.6 V. - .64 mv.
　～～　T C. L. (6 H2.)

8-19-74
　Recked all current driver voltages and
all read + write currents. Ched the memory
timing on cards 8270 and readj the No. 2

memory from 460 nanoseconds to 520
nanoseconds. Run the memory worst
case program 303410 A for 1½ Hrs.
without an error. T.C.L. (4 Hrs.)

4-21-74/
    Ched + readjusted the photodiode
amplifiers in the High speed reader using
the neutral density filter method.
Replaced a bad No. 8 photodiode CR9.
                    T C L. (3 Hrs.)

6-22-74
    Rid the following annual routine
maint. on the computer.
    A₁ — A6, B₁, D₂
    Reched. the line driver voltages
+ the read + write currents of both
memorys. Also reched the memory
timing on the 6270 cards.
    Run the memory worse case tape
without an error.   T.C.L. (5 Hrs.)

2-23-74

The computer was going into a I/O hold with a A-6 power failure and sometimes it would bomb out. Rechk'd the line driver voltages & read & write currents. Try the spare line driver cards & the spare current drive card but it didn't seem to work any better. Reset the read & write currents to approx. 380 MA and everything chkd. ok. Run the memory worse case tape for 1 Hr. without an error. Turned the power on & off several times without an error. T C. L. (6Hrs)

8-26-74

Did the following annual routine maint. on the computer.

B2, C5, P1, D4, D5, D6.   T C. L. (4Hrs)

8-27-74

Did the following annual routine maint on the computer. C3,   (T C. L.)
(6Hrs)
Also chkd the read & write currents in both memorys.

8-28-74
    Run the 3½ //2. composite diagnostic
program tape without an error. (R.C.L. 3½2½).
Cal. Foxbore equipment. (6 Hrs.)

8-29-74
    Cal. Foxbore equipment (3 Hrs.) R.C.L.

8-30-74
    Cal. Foxbore equipment (5 Hrs.) R.C.L.

9-4-74
    Cal. Foxbore equipment. (3 Hrs.) R.C.L.

9-5-74
    Cal. Foxbore equipment. (4 Hrs.) R.C.L.

9-17-74
    Tried to improve the shape of the
write + read pulses of memory #1 by
exchanging the memory cards of memory
#1 with the spare cards from No. 106
No. improvement   5 Hrs. (R.C.L.)

9-18-74

Same as 9-17-74 also the computer
was intermittly going into a I/0 hold
& sometimes into a healt went the
power was turned on + off   (6Hz) RCL

9-19-74,

Exchanged cards No. 8242 at location 6A+22
and the problem with the computer intermittly
going into a I/0 hold + something into
a halt went the power was turned on +
off went away. I then exchange the cards
back the way they were and still
the problem was gone. Also checked D2
that all outputs from the inputs to
the DCS are operational. (6Hz.)

9-26-74 Worked on the above problem but was
unable to find anything wrong. (4Hrs) RCL

9-27-74

There was noise on the computer ch. 30
and I found that card No. 8712 at location
2R1   20A was causing the problem.

also the char. Mod. card MC40B-2 in the
ch. 30 mod. amp. was making a bad
connection in the connector. Also ckd
the RFL bulbs and levels and ajd.
the BE Osc. 2 Hz. & the carrier 2 Hz.
(4 Hrs) W.C.P.

9-30 & 74; 10-(1 + 2 + 3 + 4)-74
    The computer would intermittenly go
into a I/0 hold when the power was
turned on & off. Also the memory worse
case tape would not run without a error,
Replaced a bad data save card No. 8639
and a bad w.c sense amp. card 8962
both on the upper 8K off memory.
Also replaced a bad transistor Q, 2N 3772
in the upper 8K off memory. 28 Hrs W.C.P

10-8-74
    Run the memory worse case tape
for 2 Hrs. without an error. Turned the
power on & off 40 times without an
error or I/0 hold. 4 Hrs. R.C. L

10-9-74
   Run the composite diagnostic
program tape without an error. (4Hrs.) TCL

10-17-74
   Did the following monthly maint.
A2 - A6. TCL. 1½Hrs.
Also run the memory worse case tape
for 2 Hrs. without an error. Chd the
watch dog relay. 3Hrs. TCL

11-4-74
   Put the following repaired cards
from the shop at stor. 106 back in
the computer. 4712 at loc. 2RI-2A,
4639 at loc. H-20 of memory #2,
and 4962 at loc. K-6 of memory #2.
Turned the power on & off 15 times
without an error. Run the memory
worst case tape No. 303010A for 1Hr.
without an error. TCL.   (4Hrs.)

11-12-74

The computer went into a I/O hold
on 11-11-74 & 11-12-74 with a A-C power failure.
Reset the line driver voltages for
full memory. Turned the A-C power
on & off 10 times without an I/O hold.
R.C.L. (2 1/2)

11-18-74

Did the following month maintenance
on the computer. A₁ - A6.
Run the memory worst case tape 303010A
but I would get errors every 15 or 20 min
when the computer cabinet doors where close.
When the doors where open I wouldn't
get any errors. Unable to find the
problem so I left the doors open. R.C.L. (4 hr.)

11-20-74

Run the input logic closed loop
diagnostic program & ched all
input & output relays. Everything
ched ok. Ched out the unit I start
circuit and everything was ok. R.C.L.
4 hr.

12-11-74

Did the following routine maint. on
the computer. A2 - A6, B1 - B2,
Oil the teletype motors and adj. the tension
so that the motor wasn't so noise. Ched out
the ch. 45 Bit 15 + ch. 46 Bit 15 out
from the computer + to the terminal Box.
3 Hrs. T C.L.

12-27-74

The computer read outs were not
operating right. Found a bad RTL -
MTY / DLV control 4 card No. 56286
at loc. 13 B in the mainframe and
replaced it with a spare card from
sta 1 U. 3 Hrs. T C.L.

12-30-74

Run the composite diagnostic program
tape without an error. 3 1/2 Hrs. T C.L.

1-13-75
    Replaced a repaired computer card
that was repaired at the shop at
loc. 106. Card No 6203 at loc. 226.
Ran the composite diagnostic
program tape without an error.
                        3½ Hr. T.C.L.

1-15-75
    The Solatron power for the computer
was moved + I cked + reset
the output voltage going to the computer.
                        ½ Hr. T.C.L.

1-16-75
    Did the following monthly
computer maint. A2 - A6. Replaced
the following parts in the teletype,
the motor intermediate gear, motor pinion,
because the gears where making excessive
noise.   T C L. 4 Hrs.

1-27-75

Replaced a required card. No. 8286
at loc. 13B in the computer. The card
was repair at sta. 106 shop. Run the
following test tapes without an error.
Multiply test, Divide test, Memory Word
case tape and the composite diagnostic
program tape.   (T.C.P. 4 Hrs.)

2-10-75

Did the following routine maint. on the
computer A_2-A_6, $B + B_2$.

2-19-75

Did the following routine maint on the
Computer C_2, C_4, C_5.

Power supply voltages

Model 222		Ripple	Model 221		Ripple
-6 =	-5.860	2 mv.	3.6 = 3.582		2.2 mv.
-10 =	-9.630	2.5 mv.	5.0 = 5.008		3.4 mv.
-16 =	-14.840	340 mv.	Model 223		
+40 =	32.927	2.9 v.	3.6 = 3.596		.9 mv.
+16 =	17.357	1.7 mv.	Model 223 (Far right)		
+35 =	33.120	3.3 mv.	3.6 v = 3.6		.68 mv.
+24 =	21.000	5.5 mv.			

2.19-75 Also replace C_3 .003 µfd cap.
on the auto start relay 82240. 4 Hrs.

2.27.75
    clean, lubricated, and check the operation
    of the teletypewriter. 4 Hrs. T.C.L.

2.28.75
    The computer bombed at 8:30 AM.
    Run the memory worse case loop for 20 min
    without a error. T.C.L. ½ Hr.

3-10.75
    Cal. the Foxboro pressure controller
    and Unit 1 & 2 surge value controllers.
                    T.C.L. 4 Hrs.

3-11-75
    Cal. the Foxboro equipment. T.C.L. 4 Hrs.

3-19-75
    Did the following monthly routine
    maint. of the computer A2-A6 T.C.L. 2 Hrs.

4-4-75

Modified the room temperature thermostat
and cal. Added some grounding straps
to the computer interface. 4 Hrs. T.C.T.

4-7-75

Did the following monthly routine
maint on the computer A1 - A6 T.C.T. 3½
also Chd the cal. of the room temperature
thermostat for rm. temp alarm + shutdown.

5-9-75

Did the following Quarterly routine
maint. on the computer A2 - A4, B1 + B2 T.C.T. 2½

5-14-75

Replaced a bad fan motor in the
middle interface rack. T.C.T. 3 Hrs.

5-20-75

Recal. the room temperature thermostat
for a room temp warning of 80°F.
                              T.C.T. 1 Hr.

5-23-75

Ched the power cord to the computer
to see if it was warm or would get
a A-C failure when moved. Everything
ched out ok.   A-C i-k 'b Hz.

6-20-75

Did the monthly routine maint of
the computer 2 Hz. T C. k

7-14-75

The computer broke out because of
a A-C power interruption the ~~~~~~
night before. Turned the power on-off
15 times without a error. Run the
Pwr. Fail-auto restart tape + ched
the 'A - accumulator (it had 102).
Run the Memory Worst Case tape for
45 min without an error. T C.k. (2 Hrs.)

7-23-75

Monthly routine maint of the computer
A2 - A6. Ck. the Cal. of the room
Temp Thermostor. T C.k. (4 Hrs.)

8-8-75
  Did the following annually routine
maint. on the computer $A_2 - A_6$, B_1 & B_2, C_2, C_5, P_5

  Power supply voltages

Model 222		Ripple	Model 221		Ripple
-6 Volts =	5.86	2 mv.	3.6 Volts =	3.60	2.0 mv.
-10 Volts =	9.61	2.6 mv	5.0 Volts =	5.03	2.95 mv.
-16 Volts =	14.85	345 mv.	Model 223		Ripple
+40 Volts =	32.97	2.9 V.	3.6 =	3.602	.82 mv.
+16 Volts =	17.35	1.65 mv.	Mode 223 (Far right)		
35 Volts =	33.08	3.3 mv.	3.6 Volts =	3.595 -	2.5 mv.
21 Volts =	21.00	.52 mv.			16 hrs. ? C X

8-11-75
  Did the following annually routine
maint on the computer. C_3, ~~C4~~ ↑ C. V. 4 Hrs.

8-12-75
  Did the following annually routine maint.
on the computer. C_4, P_1, P_2, D_3, D_4, B_7 6½ ? C V.

9-25-75   Did the following monthly
   routine maint. of the computer. A1 - A6. T.C.L. 2Hz.

10-10-75   Did the following monthly
   routine maint. of the computer A1 - A6 T.C.L. 2Hz.

11-21-75   Did the following ~~monthly~~
   Quarterly routine maint. of the computer.
   A2 - A6, B1 & B2.   T.C.L.

12-17-75
   Had a bomb out on the night of 12-16-75.
   Run the composite diagnostic program tape
   to ck out the computer. Everything cked
   out ok.   T.C.L.   4Hrs.

12-19-75   Did the following monthly
   routine maint. of the computer. A1-A6 T.C.L. 2Hz.

1-30-76   Did the following monthly
   routine maint. of the computer A1-A6 T.C.L. 2Hz.
   Also replaced a bad muffin fan at the bottom
   East corner of the upper 8K memory rack.

2-13-76

Did the following quarterly routine
maint. of the computer. A2-A6, B1 & B2 T C L. 4Hrs.

2-23-76

Reprogrammed the computer with
a new program tape dated 2-12-76 T C L.

3-12-76

At 5:44 PM the day before there was
a A-C power failure and the computer failed
to go back into remote mode.
Ched the power fail-auto restart circuits
using the dale control stn. test tape.
Also turned the power on + off to the solution
10 times without the problem. Everything ched
out ok.   2 hrs. T C L.

3-29-76

Did the following monthly routine
maint of the computer A1-A6 T C L. 2Hz.

4-15-76 Did the following monthly routine
maint. of the computer A1-A6 T C L. 2Hrs.

4-24-76

Reprogrammed the computer with a new program tape dated 4-22-76 T.C.L. ¼ Hr.

5-2-76

Replaced the Rixon modem with a modified one from the shop at STA. 106. Did the following quarterly routine maint. of the computer — A1-A6, B1 & B2. T.C.L.

6-11-76

The % of transmitting from the computer to Chicago was low the last 2 or 3 nights. Found a bad rixon modem card and replaced it with one from the shop at sta. 106. Run a test with the shop at sta. 106 for 1½ Hrs. and everything look good. T.C.L. 2½ Hrs.

10-26-81 Replaced a bad Model 221 3.6 + 5 Volt
power supply. Got a replacement from
106. Reset 3.6 + 5 Volt pots.
                    Tracy Losh